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Strategic actions and going-concern audit opinions

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ABSTRACT

In this paper we examine the association between various types of strategic management actions by distressed companies and the likelihood that they receive a going-concern audit opinion. Prior going-concern studies that focus on the impact of non-financial information investigate particular *operating* turnaround initiatives, such as cost reduction strategies (see, Behn et al., 2001; and Geiger and Rama, 2003). We contribute to this literature by studying the impact of a broader set of operating turnaround initiatives (i.e. cost reduction, asset disposal, increased marketing and product upgrading), as well as a set of strategic growth initiatives (i.e. product innovation, expansion and cooperative strategies). As the assessment of an auditee's likelihood of survival within the next twelve months is a critical in the going-concern decision making context, we further distinguish between strategic growth initiatives that are likely to generate positive cash flows in the short run (i.e. cooperative agreements) versus long run (i.e. innovation and expansion strategies). Based on manually collected data on a sample of 114 distressed manufacturing US firms, we find that operating turnaround initiatives, as well as strategic initiatives that are likely to generate positive cash flows in the long run are positively associated with the likelihood that a going-concern opinion is received. This evidence suggests that these two categories of management initiatives are perceived as additional going-concern risk factors by auditors. On the contrary, strategic turnaround initiatives that are likely to generate positive cash flows in the short run, are negatively associated with the likelihood that a going-concern opinion is received, which is supportive of this category of initiatives being perceived as mitigating factors.

Keywords: strategic management actions, going-concern audit opinion

Data availability: The strategic company information used in the paper is manually collected from the 10-Ks filed with the SEC; the financial data are from public sources identified in the paper.

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1. INTRODUCTION

In this study we investigate whether *strategic* actions taken by management of financially distressed firms affect the auditors' *going-concern opinion* decision. Hypothesizing a relationship between client strategic actions and going-concern audit decisions is motivated by at least two features. First, SAS no. 59 explicitly prescribes the consideration of contrary non-financial (internal and external) matters and mitigating management plans in making going-concern decisions. Therefore a broad set of events, actions and management plans – including strategic – are potential determinants of going-concern opinion decisions. Second, changes in auditing methodology and technology towards business risk auditing approaches in the second half of the nineties (such as Strategic-Systems Auditing as introduced in Bell et al. 1997 and further developed in Bell et al. 2005) further motivate the likelihood that strategic management actions are an integrated part of audit evidence collection. Note that client strategic analysis[1] is one of the most innovative aspects of business risk auditing methodologies. As the evidence collected from strategic analyses is likely to have a substantial impact on subsequently planned and executed audit procedures as well as the assessment of a client's future financial viability, it is also very likely to affect the auditor's going-concern opinion decision.

It is well documented in the literature that auditors make going-concern decisions based on reported financial results and compliance with financial obligations (see, for example, Mutchler, 1985 and 1997; Levitan and Knoblett, 1985; Menon and Schwartz, 1987; Dopuch et al., 1987; Bell and Tabor, 1991; Chen and Church, 1992; Gaeremynck and Willekens, 2003). The importance of information other than that contained in the financial statements is also emphasized in SAS no. 59. Besides the presence of negative financial trends and other indications of possible financial difficulties – like for example default on loan agreements, SAS No. 59 also defines certain (non-financial) internal and external matters as conditions and events that may indicate

[1] or stated alternatively, acquiring evidence of and from the entity business states (EBS) as advocated in Bell et al. (2005).

that there could be substantial doubt about the entity to continue as a going-concern. Subsequently, SAS no.59 also requires auditors to consider management plans to *mitigate* the effects of these adverse conditions or events when assessing their client's ability to continue as a going-concern. The impact on the audit opinion of contrary and mitigating factors in publicly available disclosures such as the financial press, 10-K's or management discussions and analyses has also been documented in the going-concern literature (see Mutchler et al., 1997). Although the importance of *strategic* management plans is recognized in today's auditing practice, research on the impact of forward-looking management plans on going-concern decisions is scant. Behn et al. (2001) recognized this caveat and provide evidence of the relationship between the likelihood of going-concern opinions and a company's ability to obtain new financing and to reduce costs. After controlling for financial condition, size, default status, and the propensity to voluntarily disclose information, their results indicate that going-concern opinion decisions are strongly linked to publicly available mitigating information regarding certain management plans. In particular, plans to issue equity and to borrow additional funds exert the strongest association with the issuance of an unqualified opinion. Recently, Geiger and Rama (2003) report that companies are more likely to receive a modified report if they entered into a cost reduction plan or sold off significant assets. However, contrary to the findings of Behn et al. (2001), plans for the issuance of new debt or equity are not significantly associated with the auditor's opinion type.

The increased relevance of strategic parameters in the audit decision making context in general, is attributable to changes in the scope and methodology of auditing that have taken place in (a number of) large accounting firms in the second half of the nineties (see, for example, Bell et al. 1997; Lemon, Tatum and Turley 2000; Knechel, 2001; Bell et al. 2005; Curtis and Turley 2005). Whereas traditional auditing approaches adopt a bottom-up focus thereby directing attention to the nature of account balances, classes of transactions, and properties of the client's accounting system, business risk auditing develops a top-down holistic perspective of the client's business and industry. This entails a thorough analysis of the client's business and strategic position. Note that a general evolution towards business risk auditing elements is reflected in some of the new International Audit Risk Standards. In particular, International Standard on Auditing (ISA) 315 requires the auditor to develop an understanding of client objectives and strategies, as well as the related business risks that may result in a material misstatement of the financial statements. These business risks should not only be evaluated in light of their immediate consequences for the risk of material misstatements, but also with regard to their longer-term consequences.

We contribute to the going-concern literature by testing the association between the likelihood of going-concern opinions and a comprehensive set of strategic actions for a sample of distressed US manufacturing companies. Like other going-concern studies, we rely on information disclosed by management in the management discussion and analysis (MD&A), and remainder of the 10-K (Behn et al., 2001; Geiger and Rama, 2003). Consistent with the strategy literature[2] (see for example, Barker and Duhaime, 1997; Robbins and Pearce II, 1992; Sudarsanam and Lai, 2001; Bruton et al. 2003) we distinguish between management actions and plans aimed at a short-term improvement in *financial* performance (or, operating turnaround initiatives) and strategic growth initiatives (or, strategic turnaround initiatives). As going-concern decision making involves the assessment of the likelihood of survival of an auditee within the next twelve months, we further sub-divide strategic growth initiatives in those that are likely to generate positive cash flows in the short run (i.e. cooperative agreements) versus long run (i.e. innovation and expansion strategies).

Consistent with prior going-concern studies which focused on short-term improvement (or, operating) initiatives (see, Behn et al. 2001; Geiger and Rama, 2003), we find that cost reduction strategies are positively associated with the likelihood of receiving a going-concern

[2] The strategy literature contains an extensive body of research that focuses on how firms reverse firm-threatening performance declines. See also hypothesis development section.

opinion. In addition, we also find that marketing strategies are positively associated with the likelihood of receiving a going-concern opinion. Our test of the growth initiatives reveals that the engagement in cooperative agreements is negatively associated with the likelihood of receiving a going-concern opinion. Our results are consistent with cooperative agreements providing a positive signal about the going-concern status of the firm and therefore can be interpreted as a mitigating factor, whereas the presence of cost reduction and marketing strategies are perceived as additional going-concern risk factors which increase the likelihood to receive a going-concern opinion.

Finally, we also test the impact of three types of aggregated construct variables capturing the presence short-term initiatives, strategic growth initiatives and vvv. We find that more operating turnaround initiatives taken by a distressed firm are associated with a higher likelihood that a going-concern opinion is issued. A similar result is obtained for strategic initiatives not capable of generating short-term financial impact. On the contrary, the presence of strategic turnaround initiatives that are likely to generate a financial impact in the short run is negatively associated with the likelihood that a going-concern opinion is issued. Thus, our evidence suggests that auditors perceive the engagement in operating initiatives and strategic growth initiatives that only yield a financial impact in the long term as additional going-concern risk factors, but the engagement in strategic growth initiatives that generate a short-term financial impact as a mitigating factor.

The remainder of this paper is organized as follows. In the next section we develop our hypotheses. Section 3 then is devoted to the development of the going-concern opinion model that is tested in this paper. Next, in Section 4 we provide an overview of our sample selection procedure and data collection approach. In Section 5 we discuss the results of our analyses. We conclude in Section 6.

2. HYPOTHESES DEVELOPMENT

SAS no. 59 clearly states that besides financial indicators – such as negative (financial) trends and other indications of possible financial difficulties – non-financial internal and external matters are relevant conditions and events to assess the going-concern status of a client firm. Examples of internal matters that are included in SAS No. 59 are work stoppages or substantial dependence on the success of a particular project. External matters listed in SAS No. 59 include, for example, legal proceedings or the loss of a key franchise, license or patent. Furthermore, when the identified conditions and events in the aggregate lead to substantial doubt about the continued existence of the entity as a going-concern, the auditor should identify and evaluate management's plans to mitigate the effects of these adverse conditions or events. If the auditor believes that there exist management plans that overcome this substantial doubt, a going-concern audit report is not required. Examples of such potentially mitigating management plans are included in SAS no.59, and relate to the sale of assets, the borrowing or restructuring of debt, the reduction of expenditures and the increase of ownership equity.

A few prior studies provide evidence that auditors are indeed committed to reviewing management plans that are dealing with adverse conditions or events when assessing a client's ability to continue as a going-concern (Behn et al., 2001; Geiger and Rama, 2003). However, these studies are confined to assessing the impact of examples of management plans and actions that are explicitly mentioned in SAS no.59. In this paper, we elaborate on this theme and investigate the impact of a broader set of potentially contrary or mitigating actions and strategies on the auditor's going-concern decision. We motivate this broader strategic focus by the emergence of business risk auditing in the 1990s. With the emergence of business risk auditing, traditional auditing methodologies have been complemented with new audit processes based on a top-down, holistic perspective of the client's business and industry (see, for example, Bell et al. 1997; Knechel 2001; Lemon, Tatum and Turley 2000). The most innovative aspect of business risk auditing is the assessment of client strategic viability, which can have a substantial impact on the subsequent audit procedures and the assessment of future financial viability.

To predict the impact of a comprehensive set of viable strategic actions on the going-concern opinion, we categorize management actions into *strategic* and *operating* turnaround approaches. This is a widely used framework introduced by Hofer (1980). Note that an operating approach focuses on *internal*, operating problems of firms through – for example – decreasing costs, increasing efficiency, disposing assets, or improving sales (Hofer, 1980). A strategic turnaround approach is aimed at long-term profitability by solving *external*, strategic problems through for example a change in the strategic direction of the firm, its positioning, alliances and product lines (Bruton et al., 2003). Strategic repositioning may be done through business divestments, acquisitions, alliances, new product development, new markets, and increased market penetration. Firms experiencing financial distress may adopt a variety of strategies to return to financial health. The strategy literature offers an extensive body of research that focuses on how firms reverse firm-threatening performance declines to induce successful company turnaround[3] (see for example, Barker & Duhaime, 1997; Robbins and Pearce II, 1992; Sudarsanam & Lai, 2001; Bruton et al. 2003).

Hypothesis 1: Operating turnaround approaches and going-concern opinions

An operating approach to company turnaround typically consists of actions related to cost reduction, revenue generation and operating-asset reduction. The focus is on achieving short-term financial relief, without considering long-term changes in the organization's strategy. In order to achieve short-term profitability improvement, companies have the opportunity to engage in classic retrenchment activities such as: divestment, product elimination, cost rationalization and employee layoffs. In addition to these cost-cutting initiatives, revenue generating strategies may

[3] Successful turnaround is defined as the reversal of a firm's pattern of performance decline (Schendel, Patton and Riggs, 1976).

be pursued focusing on existing lines of products, price-cutting, increased marketing expenditure or increased direct sales efforts (Hofer, 1980).

Prior studies that examine the association between the implementation of operating approaches and successful company turnaround have focused on retrenchment activities and provide mixed results. Several studies report that classic retrenchment strategies are significantly associated with turnaround success (see, for example, Robbins and Pearce II, 1992), whereas other studies cast doubt on the value of operating approaches as part of a company's turnaround approach (Sudarsanam and Lai, 2001; Barker III and Mone, 1994).

The mixed evidence from the strategy literature indicates that operating turnaround strategies *per se* may not be capable of curing deficiencies in a declining firm's strategic orientation. In other words, if a declining firm's problems relate to its strategic positioning, these short-term cures could be inadequate, given that changing a firm's strategic orientation is a prerequisite to recovery (see also Schendel et al., 1976; Hofer, 1980; Barker and Duhaime, 1997). As we investigate the auditor's perception of the effectiveness of operating turnaround approaches[4] for distressed firms, a relevant question is which signal such approaches by themselves send to the auditor regarding the going-concern status of the company. Given the evidence reported above, it is likely that auditors perceive operating turnaround strategies as insufficient to induce recovery for distressed firms. This is indeed consistent with the finding reported by Geiger and Rama (2003), i.e. that cost-cutting or asset disposal activities are associated with a higher likelihood of receiving a going-concern audit report. This leads to our first hypothesis:

[4] These include cost-cutting activities, disposal of assets, increasing marketing efforts and improving existing products and operating processes – see also Section Model Specification.

H1: *For financially distressed companies, the implementation of an operating turnaround approach is likely to increase (ceteris paribus) the propensity that a going-concern opinion is issued.*

Hypothesis 2: Strategic turnaround approaches and going-concern opinions

Overall, the evidence from the strategy literature suggests that (long-term) strategic turnaround approaches are successful turnaround vehicles. Barker III and Duhaime (1997) find that when a company's decline is firm-based and not caused by industry contraction, recovering firms implement more extensive strategic changes (which are consistent with reorientation). Sudarsanam and Lai (2001) provide evidence that firms recovering from financial distress typically adopt more forward-looking, expansionary and external market focused strategies than non-recovery firms. More specifically, recovery firms typically adopt growth-oriented and external-market focused strategies, whereas non-recovery firms continue to engage in operating restructuring strategies. Given the evidence from the strategy literature about the effectiveness of strategic approaches for company turnaround and recovery, it is reasonable to expect that such strategies may also have a mitigating impact on the auditor's going-concern opinion. However, as the auditor's going-concern opinion is an assessment of the client's ability to survive during the next 12 months, only those (long-term) strategic approaches that are expected to have a positive impact on the company's liquidity status *within* the next 12 months will be perceived as mitigating factors. It is therefore necessary to further examine the short-term impact of the different types of long-term strategic approaches, i.e. cooperative agreements, product innovation and acquisition strategies.

Barker III and Duhaime (1997) emphasize that c*ooperative agreements* with other firms are an essential element of a turnaround approach based on strategic change. Examples of cooperative strategies include long-term contractual agreements with suppliers or buyers, alliances or joint ventures, subcontracting and technology licensing agreements[5]. Prior research about the consequences of the implementation of a cooperative strategy has shown that strategic networks such as strategic alliances, joint-ventures and long-term buyer-supplier relationships often have positive effects on different measures of corporate performance. For example, Mitchell and Singh (1996) reported evidence of alliances raising organisational survival rates. Powell et al. (1996) found that companies which had formed many alliances experienced accelerated growth rates. Gulati et al. (2000) highlight the idea that one of the most important benefits of strategic networks is the increased access to information, resources, markets and technologies. In addition to access to resources, Stuart (2000) found that strategic alliances also affect firm subsequent-period performance through their influence on an organization's reputation, particularly if the firm is of ambiguous quality.

Capon et al. (1992) report that *new product* development and *strategic acquisitions* are often linked to (long-term) performance improvement, and report evidence that suggests that both strategies act as substitutes in terms of effectiveness vis-à-vis company turnaround (i.e. non-innovative firms that involve in acquisitions perform nearly as well as those that engage in product innovations). However, the short-term performance impact of both types of strategic actions is less apparent. In a recent meta-analytic review of merger and acquisition performance, King et al. (2004) report that acquisitions are *not* improving the short-term financial performance of acquiring firms, on average[6]. With respect to the short-term performance impact of product innovation, Mishina et al. (2004) even report a negative association with the rate of short-term sales growth.

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[5] Note that strategic alliances are a popular financing vehicle for companies in financial distress, as partnering up with a successful healthy company can provide distressed companies with additional funding to develop or market products, or with other benefits such as a more extensive customer base (see, for example, Bruton et al. 2003). Another vehicle to improve financial position is engaging in a licensing strategy with regard to unused or high-risk technology. Licensing out proprietary technology can substantially improve a company's financial position as it periodically receives royalties and/or milestone payments (see, for example, Sudarsanam and Lai 2003). A company can also safeguard future sales by engaging into long-term contracting with buyers or distributors (Miller, 1992).

[6] Instead, this study indicates that acquisitions either have no significant effect or a modest negative effect on an acquiring firm's financial performance in the post-announcement period.

To summarize, the evidence from the strategy literature suggests that (long-term) strategic turnaround approaches are successful turnaround vehicles. However, the short-term performance impact of different types of strategic turnaround approaches varies. Based on prior research it is reasonable to expect that the introduction of new products and corporate acquisitions are less likely to have a positive financial impact within the next 12 months, whereas it is more likely that cooperative agreements generate positive cash flows within the next 12 months. This leads to our second hypothesis:

H2: *For financially distressed companies the implementation of a strategic turnaround approach is likely to reduce (ceteris paribus) the propensity that a going-concern audit opinion is issued, given that the strategy is likely to have a mitigating impact within the next 12 months.*

3. MODEL SPECIFICATION AND VARIABLE MEASUREMENT

We use the following logistic model to test our two hypotheses:

REPORT = *f* (operating turnaround variables, strategic turnaround variables, control variables).

REPORT is an indicator variable that takes a value equal to one if the auditor issues a going-concern report, and zero otherwise. The turnaround approach variables contain information regarding turnaround strategies that have been implemented by the company during the year under audit to overcome adverse conditions affecting corporate performance. This information is *manually* collected from corporate disclosures in the annual report and 10-K. We investigate the impact of two categories of turnaround strategies that can potentially mitigate the adverse conditions affecting company performance. In the category of operating turnaround strategies, we consider the impact of cost-cutting and asset disposal activities, product and operating process improvements and increasing marketing efforts. As strategic turnaround approaches, we consider cooperative agreements with other firms, the introduction of new products, mergers, and acquisitions. Finally, the control variables in our model encompass factors that have been found to be associated with going-concern opinion decisions and the propensity to voluntarily disclose information in prior research.

[INSERT TABLE 1 ABOUT HERE]

3.1 Operating turnaround variables

Our classification of operating turnaround variables is based on Hofer (1980) who distinguishes between four different types of operating turnaround approaches: a) cost-cutting strategies, b) asset reduction strategies, c) revenue increasing strategies and d) combination strategies. Accordingly, we include and test variables reflecting a cost reduction strategy (O-COSTRED), an asset disposal strategy (O-DISPOSE), a commercial strategy (O-COMMERCIAL), and a strategy aimed at the improvement of existing products and processes (O-UPGRAD).

We define O-COSTRED as an operating turnaround variable that captures significant cost reduction efforts. In particular, this variable relates to both employee layoffs and other cost reduction efforts during the year under audit. O-COSTRED is set equal to one if the company reports cost reduction strategies for the year under audit, and is set equal to zero otherwise. O-DISPOSE is defined as an operating turnaround variable that indicates whether a company engages in the sale of significant assets. O-DISPOSE is set equal to one if the company reports the sale of assets for the year under audit, and is set equal to zero otherwise. As opposed to strategic actions aimed at reducing expenditures, short-term operating strategies also include a number of revenue generating activities (Hofer, 1980). Subsequently, we define O-

COMMERCIAL as an operating turnaround variable that indicates whether a company increases its marketing efforts, and O-UPGRAD as a variable that relates to the realisation of improvements in existing products and production processes. O-COMMERCIAL is set equal to one if the company reports increased marketing efforts for the year under audit, and is set equal to zero otherwise. O-UPGRADE is set equal to one if the company reports product and/or process improvements for the year under audit, and is set equal to zero otherwise. In order to extend and refine our analyses, we also define a number of strategic construct variables. This will enable us to test the aggregate impact of strategic turnaround variables that have similar characteristics on theoretical grounds. OPERATING is defined as the sum of O-COSTRED, O-DISPOSE, O-COMMERCIAL and O-UPGRADE, scaled by its maximum value in the sample. Note that a further refinement in short-term versus long-term impact variables would be tautological in the context of operating initiatives, as they are all expected to have a short-term impact on financial performance.

3.2 Strategic turnaround variables

Long-term strategic turnaround approaches typically relate to reconfiguration of the assets and/or the corporate portfolio, and product and/or market refocusing. S-EXPANSION is a strategic turnaround variable capturing whether a company engages in an acquisition strategy (of other companies) to accelerate growth. S-EXPANSION is set equal to one if the company reports acquisitions for the year under audit, and is set equal to zero if such is not the case. We also include S-COOP, a variable that indicates whether a company enters into strategic alliances, joint-ventures, licensing agreements and other cooperative arrangements. S-COOP is set equal to one if a company entered in cooperative arrangements during the year under audit, and is set equal to zero if such is not the case. Further, we define S-PRODUCT as a strategic turnaround variable that assesses whether a company has recently introduced new products. S-PRODUCT is set equal to one if the company reports the introduction of new products during the year under audit, and is set equal to zero if such is not the case.

Finally, we also introduce strategic construct variables to capture the aggregate impact of several strategic turnaround initiatives engaged in by the audited firm. First, we define a (rough) strategic construct variable STRATEGIC to capture the aggregate impact of all strategic turnaround initiatives that have been implemented by the audited company during the past year. This categorization is based on the strategic literature (see, Hofer, 1980). STRATEGIC is a discrete variable representing the sum of all strategic turnaround variables defined above, scaled by its maximum value in the sample. In a more refined categorization of strategic variables, we distinguish between strategic initiatives that are expected to have a positive impact on firm financial performance in the short term (STRAT_ST) or in the long term (STRAT_LT). This categorization can be motivated by recent evidence in the strategy literature (see, King et al. 2004; Mishina et al. 2004) that acquisitions and product innovations are *not* improving the short-term financial performance of acquiring and innovating firms, respectively. Such a distinction in short-term and long-term financial impact is warranted given the going-concern decision context that we are investigating. STRAT_ST is an indicator variable which happens to coincide with S-COOP, as the presence of cooperative agreements is the only strategic turnaround variable defined in this paper that is likely to generate a financial impact within the next twelve months. STRAT_LT is defined as the sum of S-PRODUCTS and S-ACQUIS, divided by its maximum value in the sample. We also refer to Table 1, for an overview of definitions of the strategic variables.

3.3 Control variables

The issuance of a going-concern opinion is obviously conditional upon the auditee's financial condition. Therefore a first category of control variables that are included in our model capture the financial condition of the firm. Based on prior audit opinion studies (see, for example, Mutchler 1985, 1997; Chen and Church, 1992) we include cash flow from operations divided by total liabilities (CFO/TL), the current ratio (CR), and long-term debt divided by total assets (LTD/TA), as control variables. Following Menon and Schwartz (1987), we also include a change variable, namely the change in current ratio (ΔCR). In line with Bell and Tabor (1991), we also control for a company's liquidity performance relative to the industry, by including an indicator variable (INDCR), taking the value of one if the current ratio of the company exceeds the industry median current ratio. As in Chen and Church (1992), we also add DEFAULT, an indicator variable that takes a value equal to one if the company defaults on debt payments or is in technical default of loan covenants[7], and zero otherwise. Following prior research, we also include the log of total assets to control for company size (see, for example, Chen and Church, 1992).

A second category of control variables constitute mitigating factors identified in prior audit opinion research. Behn et al. (2001) find that plans to use existing bank lines of credit and other approved lines of credit are negatively associated with the likelihood of a going-concern opinion. Consistent with Behn et al. (2001) we include BORROW, a variable that is set equal to one if the auditee plans to borrow funds through existing bank lines of credit or other approved debt instruments; and STOCK, a variable that is set equal to one if the auditee plans to issue equity through existing or committed arrangements.

4. SAMPLE AND DATA

4.1 Sample selection

Consistent with prior going-concern studies (see, for example, Mutchler, 1985; Chen and Church, 1992; and Behn et al., 2001) we select a sample adopting a matched pair design. Note that a

[7] A company's default status was determined by reading the MD&A and debt footnotes in the financial statements.

matched pair design is most often used when the research design necessitates manual data collection, as is the case in this study. In particular, we first selected a sample of companies that received a first-time going-concern opinion and then a matched sample of distressed companies that did not receive a going-concern opinion.

Selection of going-concern firms

We identified all firms from the Worldscope database that are listed on AMEX, NASDAQ and NYSE and received a going-concern audit opinion in the period 1998-2001. Consistent with prior studies (Mutchler and Williams 1990; Behn et al. 2001; Blay and Geiger 2001), we restricted our sample to companies in the manufacturing industries (SIC 20 to 39) to eliminate confounding industry effects. This resulted in an initial sample of 276 manufacturing companies that received a going-concern audit opinion in fiscal years from 1998-2001. From this initial sample, we then eliminated companies that received a going-concern report in the previous year to control for potential confounding effects from prior going-concern opinions (see also, Mutchler, 1985, Blay & Geiger, 2001; Behn et al., 2001). In addition, we also excluded firms that faced bankruptcy proceedings as the decision to issue a going-concern opinion is trivial for such firms, and firms for which no match could be identified. This resulted in 57 firms with going-concern opinions: 8 firms in 1998, 8 firms in 1999, 15 firms in 2000, and 26 firms in 2001.

Selection of control firms

To test our going-concern model, we matched the going-concern sample with a sample of distressed companies that did not receive a going-concern report. We searched the Worldscope database from 1998 to 2001 to identify all manufacturing companies listed on NASDAQ, NYSE or AMEX that received a clean audit opinion. Consistent with prior studies, we further restricted the control sample to firms in financial distress (see, for example, Mutchler, 1985; Chen &

Church, 1992; Behn et al., 2001; McKeown et al., 1991). Based on Chen and Church (1992) we adopt the following criteria to identify distressed companies: 1) negative retained earnings, 2) negative operating income, 3) negative net income , 4) negative working capital, 5) negative net worth, and 6) negative operating cash flows. Note that Chen and Church (1992) classified a company as stressed if it meets at least one of above criteria. We use a more stringent rule for financial distress, by classifying a company to be stressed if it meets at least two of these stress criteria. This procedure yielded 2929 "distressed" companies that received a clean opinion during the period 1998-2001.

As we use a matched-pair design, we matched control-sample companies to the going-concern firms based on year, size (proxied by total assets) and two-digit SIC classifications. This procedure ensures that we include similar companies with respect to size and industry in both sub-samples. A matched group design has been used previously by Mutchler (1985), Chen and Church (1992), Behn et al. (2001) and Geiger and Rama (2003). A limitation of this approach is that it overstates the issuance of a going-concern opinion in this experimental setting. Note that we address this issue by our statistical approach, as we adopt logistic regression analysis (see further).

[INSERT TABLE 2 ABOUT HERE]

4.2 Data collection and strategic scorecard

As strategic company information is not publicly available, we manually collected this information from the relevant 10-Ks filed with the SEC, by reading these documents back-to-cover and completing a strategic scorecard. The strategic scorecard used to test our hypotheses is included in Appendix A. For each of the defined turnaround approaches we assessed whether the company has engaged in actions related to that specific turnaround initiative during the year under audit. Per initiative, a score equal to one is assigned if a firm discloses such action, and zero otherwise.

The suitability of 10-K filings for strategic information collection is supported by prior studies that investigated the association between disclosures in the MD&A and future corporate financial performance. These studies report evidence that indicates that the information content of narrative disclosures in the annual report is significantly associated with future viability of distressed firms (see, for example, Tennyson et al., 1990; Boo and Simnett, 2002). Boo and Simnett (2002) examine the reliability of management's prospective comments for a sample of 140 Australian public companies that had experienced significant losses. Their results indicate that management's prospective comments have significant information content with respect to the company's future viability. Note also that SAS No. 8 requires auditors to ensure that the 'other information' attached to financial statements is not materially inconsistent with the financial statements, and does not contain any material misstatement or fact. Furthermore, the costs of potential litigation and loss of reputation are important factors to prevent management from disclosing misleading information.

Note that the dependent variable and (most of) the control variables in the model are collected from the WORLDSCOPE data base. The information regarding management's plans to engage in additional borrowings and equity issues is also retrieved from 10K's.

5. RESULTS

5.1 Descriptive statistics and univariate results

Tables 3 and 4 contain the descriptive statistics for the test and control variables. The descriptive statistics in Table 3 relate to the full sample (of distressed companies), whereas the descriptive statistics in Table 4 are given for the going-concern and non-going concern samples separately. Table 4 also reports the results of a t-test of differences between the going-concern and non-going concern samples. Inspection of Table 3 reveals that the most common turnaround approaches in our (full) sample of distressed firms are the cost reduction strategy (O-COSTRED, appearing in 60% of the sample firms) and the cooperative strategy (S-COOP, appearing in 61% of the sample firms). All other approaches only occur in between 15 and 34 percent of the sample firms.

The results in Table 4 indicate that the companies that received a going-concern audit report have a significantly lower current ratio (CR, t-statistic = 2.84), are more likely to have a lower current ratio than the industry average value (INDCR, t-statistic = 4.83), are less likely to be in default (DEFAULT, t-statistic = 3.71) and engage less frequently in additional borrowings (BORROWING, t-statistic = 5.38). These results are consistent with going-concern opinions being issued for distressed companies that face short term liquidity problems. Note that the non-significant differences between the two samples with respect to the other financial distress variables (other than liquidity measures) and total assets are supporting the efficacy of our matching procedures.

Only a few turnaround activities appear to be significantly different for going-concern and non-going concern companies. The strongest result is found for cost-cutting activities which are significantly more common in the sample of going-concern firms (O-COSTRED, t-statistic = 1.92). The aggregate OPERATING variable is also (weakly) significantly higher for the going-concern sample (OPERATING, t-statistic = 1.98). The occurrence of (long-term) strategic activities is not significantly different between going-concern and non-going concern firms.

[INSERT TABLE 3 ABOUT HERE]

[INSERT TABLE 4 ABOUT HERE]

5.2 Multivariate logistic analysis

To test our hypotheses and assess which (type) strategic and operating variables are significantly different between going-concern and other firms we estimate four logistic regression models. Our choice of logistic regression analysis (instead of a probit analysis) is inspired by the matched sampling approach we adopt. The use of logistic regression analysis neutralizes potential problems resulting from oversampling going-concern companies relative to the population proportion. In logistic regression analysis the coefficients of the independent variables will not be affected by disproportionate sampling, only the intercept term is affected. However, since we are not obtaining parameter estimates for the purpose of developing a predictive model, the bias in the intercept term has no effect on our analysis (Maddala, 1991). We further also tested whether there are multicollinearity problems between the independent variables that may affect our results. Inspection of the correlation matrix (see Appendix B) indicates that most correlations between the independent variables are below 30 percent. As there are some larger correlations, we also calculated VIF factors, but all VIF scores are below 4.11.

We report the results from our multivariate logistic analyses in Tables 5 and 6. We estimate four models. Model 1 is estimated to establish a base model for going-concern opinions based on prior audit opinion studies, and thus mainly includes financial health variables and variables that capture the ability to engage in additional borrowings and stock issues. Models 2, 3 and 4 are estimated to test our hypotheses and assess which (types of) strategic and operating variables have incremental explanatory power beyond the control variables.

[INSERT TABLE 5 ABOUT HERE]

[INSERT TABLE 6 ABOUT HERE]

Model 1 has good explanatory power with a chi-square statistic equal to 66.44, a pseudo R^2 equal to 57% and a McFadden R^2 equal to 42%. Only the current ratio (CR, $p < 0.05$), the company's current ratio relative to the industry (IND_CR, $p < 0.05$) operating cash flow over total liabilities (CFOTL, $p < 0.01$), DEFAULT ($p<0.01$) and BORROW ($p <0.01$) are significant in a multivariate setting. These results indicate that in a distressed firms' context, poor liquidity is positively associated with the likelihood to receive a going-concern opinion, whereas the ability of a firm to enter in new borrowings is a mitigating factor. Note again that lack of significance of the other financial variables illustrates the efficacy of our matching procedures.

We estimate Model 2 in order to investigate the incremental explanatory power of all defined operating and strategic initiatives (see Table 1 for their definitions). Including the individual strategic and operating variables in the going-concern model improves the model's explanatory power, with a model chi-square equal to 79.90 (instead of 66.44 for Model 1), a pseudo R^2 equal to 62% (instead of 57% for Model 1) and a McFadden R^2 equal to 51% (instead of 42% for Model 1). Of the four turnaround variables that capture operating initiatives, the cost cutting variable (O-COSTRED, $p=0.07$) is positively and significantly associated with the likelihood of receiving a going-concern opinion. This result is consistent with the evidence in Behn et al. (2001) and Geiger and Rama (2003). The analysis further indicates that increased marketing (O-COMMERCIAL, $p=0.04$, two sided) and upgrading (O-UPGRADE, $p=0.14$, two sided) yield a similar positive result, indicating that these operating activities increase the likelihood of receiving a going-concern opinion. These findings are consistent with our first hypothesis, stating that operating turnaround strategies do not function as mitigating factors in an audit opinion decision context, but rather reinforce the signal that the company faces going-concern problems. This is consistent with evidence from the strategy literature that companies that only implement operating turnaround actions without implementing (subsequently) strategic turnaround actions have a lower survival chance (Sudarsanam en Lai, 2001). Finally, we do not find a significant result for O-DISPOSE.

Of the three defined strategic turnaround variables only S-COOP is significantly negatively associated with the likelihood to receive a going-concern opinion (S-COOP, $p<0.05$). This result is consistent with the prediction in Hypothesis 2, and indicates that companies that entered into cooperative agreements with other firms during the year under audit are less likely to receive a going-concern audit report. This also implies that the presence of cooperative agreements is seen as a positive turnaround signal by the auditor (with favourable liquidity effects already in the next 12 months) and hence can be considered as a mitigating factor. This result is not surprising, as prior research has shown that strategic networks often have positive effects on corporate performance through access to resources and its influence on corporate reputation (Mitchell and Singh, 1996; Powell et al., 1996; Stuart, 2000).

The other two strategic variables, namely the introduction of new products (S-PRODUCTS, $p = 0.22$), and the growth through mergers and acquisitions (S-EXPAND, $p=0.23$) are (by themselves) not significantly associated with the likelihood of receiving a going-concern opinion. This can be explained by the fact that, in a *distressed firm* context, the presence of recently undertaken long-term strategic actions such as the introduction of new products and the acquisition of another company may be perceived as very risky actions for which the outcome is uncertain. As evidenced by prior research (King et al. 2004) it is not very likely that an acquisition improves liquidity in the next twelve months. Similarly, it is not very likely that the introduction of new products leads to massive positive cash flows in the first year. Note that Mishina et al. (2004) even report a negative association between product innovation and short term financial performance.

In Table 6 we report the results of estimating two additional models based on aggregations of the individual operating and strategic initiatives into strategic construct variables (see measurement section). In Model 3 we test two construct variables based on Hofer's (1980) classification, i.e. OPERATING and STRATEGIC, reflecting aggregate measures for the engagement in either operating or strategic activities. In Model 4, we disaggregate the STRATEGIC construct by distinguishing between strategic actions (growth initiatives) that are likely to have an impact on financial performance in the short-term (STRAT_ST), and those likely to have an impact in the long-term (STRAT_LT). We believe that this refined categorization is warranted given the going-concern opinion context in which we study strategic actions, as well as recent findings in the strategy literature (King et al., 2004; Mishina et al. 2004) that indicate that some strategic actions do not have a short-term effect on financial performance.

The explanatory power of Model 3 is comparable to that of the base model (Model 1) and much weaker compared to Model 2, with a chi-squared equal to 60.61, pseudo R^2 equal to 58% and a McFadden R^2 equal to 44%. Including the two (rough) construct variables thus adds no significant explanatory power to the going-concern model. This indeed suggests that a more detailed analysis, as in Model 4, is warranted. The explanatory power of Model 4 clearly outperforms Models 1 and 3, with a model chi-square of 76.67 and a McFadden R^2 equal to 61%. Estimation of Model 4 yields significant results for all three strategic constructs, i.e. OPERATING ($p = 0.0256$), STRAT_ST ($p=0.0485$) and STRAT_LT ($p = 0,0413$). The results support our first hypothesis that operating initiatives do not have a mitigating impact on the going-concern decision. More specifically, the implementation of operating initiatives sends a negative signal to the auditor and significantly increases the likelihood of a going-concern report, as the OPERATING construct has a positive coefficient. Consistent with Hypothesis 2, results further indicate that strategic initiatives with a short-term financial impact serve as a mitigating factor, as STRAT_ST has a negative coefficient. Our evidence also suggests that strategic initiatives with a long-term financial impact have no mitigating impact on the going-concern decision. On the contrary, our results suggest that such long-term strategic actions are perceived by the auditor as a going-concern risk factor, as they are positively associated with the likelihood that a going-concern modified audit report is issued. As evidenced by prior research, it is not very likely that acquisitions and new products improve liquidity in the next twelve months. Moreover, acquisitions and mergers are high-risk activities that should be carefully managed in order to create value, especially in a distressed firms' context.

Overall, the evidence that we present suggests that the inclusion of variables that capture operating and strategic turnaround initiatives enhances the explanatory power of going-concern opinion models for distressed firms. Also, the results indicate that the presence of cost reduction strategies or increased marketing efforts are perceived as additional going-concern risk factors as they increase the likelihood to receive a going-concern opinion, whereas cooperative agreements provide positive signals about the going-concern status of the firm and therefore can be interpreted as a mitigating factor. All other turnaround variables (both strategic and operating) by themselves have a positive but insignificant sign. When we test aggregated constructs of operating and strategic variables with similar features, we find that the presence of operating turnaround initiatives as well as the presence of strategic initiatives that are only likely to generate a long-term financial impact are positively associated with the likelihood to receive a going-concern opinion, whereas the presence of strategic turnaround initiatives that generate a financial impact in the short term are negatively associated with the likelihood to receive a going-concern opinion. Our evidence suggests that auditors perceive the engagement in operating initiatives and strategic growth initiatives that only yield a financial impact in the long term as additional going-concern risk factors, but the presence of strategic growth initiatives that generate a short-term financial impact as a mitigating factor.

5.3 Supplementary analyses

Since the operating and strategic turnaround variables are derived from client disclosures, we also re-ran the models including a set of variables that control for potential systematic differences amongst firms in making voluntary disclosures. By doing this, we aim to ensure that the operating and strategic test variables capture a firm's strategic performance instead of its general propensity to disclose corporate information. Botosan (1997) reports that four firm characteristics are significantly positively correlated with the propensity to disclose, namely: exchange listing status, firm size, audit-firm size, and leverage. Note that firm size and leverage are already included in our model specifications given their previously mentioned association with going-concern audit reports (see supra). As far as exchange listing status is concerned, prior studies (see, for example, Branson et al. 1998) find that there is typically less information provided by NASDAQ firms as opposed to NYSE/AMEX firms. We reran our model including two additional indicator variables: First, EXCHANGE that takes a value equal to one if the firm is traded on NASDAQ, and zero otherwise; second, AUDITOR, which is an indicator variable that takes a value equal to one if the auditor is a big four/five audit firm. The results show that including these two additional control variables (EXCHANGE and BIG5) in Model 2 did not add significant explanatory power ($p = 0.95$ and $p = 0.35$) and the other results remained largely unchanged.

Rosman, Seol and Biggs (1999) report that an auditor's consideration of non-financial information in a going-concern task differs between start-up and mature companies. We performed several analyses to ensure that our results are not driven by company age. Univarariate analyses of company age (AGE) across both the experimental and control samples indicate that there is no difference between going-concern and non-going-concern firms ($p = 1.00$) regarding age. Including AGE in our test models does not change the significance levels of the other variables. We also assessed possible interaction effects of AGE with the seven strategic variables defined in this study. The results of this analysis indicates that marketing efforts ($p = 0.087$) and the introduction of new products ($p = 0.007$) have a less negative impact on the going-concern decision if the company under audit is mature.

6. CONCLUSIONS

In this study we examine the impact of a broad range of operating and strategic turnaround initiatives on the likelihood that an auditor issues a going-concern audit opinion. We analyse whether these turnaround activities are functioning as mitigating factors or as going-concern risk factors. Prior studies that assess the impact of management plans on going-concern decisions (see, for example, Behn et al., 2001; Geiger and Rama, 2003) look at forward-looking plans relating to retrenchment activities and future financing. In this study, we investigate a more comprehensive set of strategic and operating actions. Consistent with the strategy literature, we classify strategic actions into (short-term) operating versus (long-term) strategic turnaround approaches. Based on the mixed results in the strategy literature regarding the effectiveness of short-term operating turnaround initiatives and recent going-concern research by Behn et al. (2001) and Geiger and Rama (2003), we hypothesize that such activities are perceived as going-concern risk factors that increase the likelihood of receiving a going-concern audit report (Hypothesis 1). Based on the findings in the strategy literature, we further argue and hypothesize that strategic approaches are likely to be negatively associated with the incidence of a going-concern opinion or in other words that they have the ability to function as mitigating factors (Hypothesis 2). However, given the going-concern decision-making context we expect such strategies only to be significant if they are capable of generating a financial impact within the next twelve months. We find indeed that the presence of cost reduction and marketing strategies are perceived as additional going-concern risk factors and increase the likelihood to receive a going-concern opinion, whereas cooperative agreements provide positive signals about the going-concern status of the firm and therefore can be interpreted as a mitigating factor. Most (3 out of four) other turnaround variables (both operating and strategic) are positively associated with going-concern opinions, but are not significant.

In addition to testing the impact of individual operating and strategic initiatives, we extended our analysis by testing aggregated constructs of operating and strategic variables that have similar features. We identify three different constructs: operating initiatives, strategic turnaround initiatives that are not capable of generating a financial impact in the short run (but are expected to do so in the long run), and strategic turnaround initiatives that are capable of generating a financial impact in the short run. We find that more operating turnaround initiatives taken by a distressed firm are associated with a higher likelihood that a going-concern opinion is issued. A similar result is obtained for strategic initiatives not capable of generating short-term financial impact. On the contrary, the presence of strategic turnaround initiatives that are likely to generate a financial impact in the short run is negatively associated with the likelihood that a going-concern opinion is issued. Thus, our evidence suggests that auditors perceive the engagement in operating initiatives and strategic growth initiatives that only yield a financial impact in the long term as additional going-concern risk factors, but the engagement in strategic growth initiatives that generate a short-term financial impact as a mitigating factor.

This study is subject to a number of limitations. First, due to the manual collection of the strategic variables the sample size in this paper is kept rather small (n=114). Further, only companies from manufacturing industries are included in the sample. Third, we use the disclosure of strategic plans and information in the annual report and 10-K as our proxy of client strategic activity. However, clients may disclose strategic plans directly to the auditor without actually disclosing them in the 10-Ks. Furthermore, we do not actually measure the feasibility of the publicly disclosed strategic plans.

REFERENCES

Barker III, V.L., and I.M. Duhaime (1997) Strategic change in the turnaround process: theory and empirical evidence, *Strategic Management Journal*, 18(1), 13-38.

Barker III, V.L., and M.A. Mone (1994) Retrenchment: Cause of Turnaround or Consequence of Decline?, *Strategic Management Journal*, 15, 395-405.

Behn, B.K., S.E. Kaplan and K.R. Krumwiede (2001) Further Evidence on the Auditor's Going-Concern Report: The Influence of Management Plans, *Auditing: A Journal of Practice and Theory*, 20(1),13-29.

Bell, T., F. Marrs, I. Solomon and H. Thomas (1997) *Auditing Organizations Through a Strategic-Systems Lens.* New York. KPMG LLP.

Bell, T.B., and R. H. Tabor (1991) Empirical analysis of audit uncertainty qualifications, *Journal of Accounting Research*, 29(2), 350-370.

Blay, A.D. and M.A. Geiger (2001) Market Expectations for First-Time Going-Concern Recipients, *Journal of Accounting, Auditing & Finance*, 16(3), 209-226.

Boo, E., and R. Simnett (2002) The Information Content of Management's Prospective Comments in Financially Distressed Companies: A Note, *Abacus*, 38(2), 280-295.

Botosan, C (1997) Disclosure Level and the Cost of Equity Capital, *The Accounting Review*, 72(3), 323–349.

Branson, B., D. Guffey, and D. Pagach (1998) Information conveyed in announcements of analyst coverage, *Contemporary Accounting Research,* 119-143.

Bruton, G.D., D. Ahlstrom, and J. Wan, (2003) Turnaround in East Asian Firms: Evidence from Ethnic Overseas Chinese Communities, *Strategic Management Journal*, 24(6), 519-540.

Capon, N., J.U. Farley, D.R. Lehman and J.M. Hulbert (1992) Profiles of product innovators among large U.S. Manufacturers, Management Science, 38(2), 157-169.

Chen, K.C.W. and B.K. Church (1992) Default on debt obligations and the issuance of going-concern opinions, *Auditing: A Journal of Practice and Theory*, 11(2), 30-50.

Curtis E. and S. Turley, (2005) From Business Risk Audits to Audit Risk Standards, Working Paper.

Dopuch, N., R.W. Holthausen and R.W. Leftwich (1987) Predicting Audit Qualifications with Financial and Market Variables, *Accounting Review*, 62(3), 431-455.

Gaeremynck, A. and M. Willekens (2003) The endogenous relationship between audit-report type and business termination: evidence on private firms in a non-litigious environment, *Accounting & Business Research*, 33(1), 65-79.

Geiger, M.A., and D.V. Rama (2003) Audit Fees, Nonaudit Fees, and Auditor Reporting on Stressed Companies, *Auditing*, 22(2), 53-69.

Gulati, R., Nohria N. and A. Zaheer (2000) Strategic Networks, *Strategic Management Journal*, 21(3), 203-215.

Hofer, C. W. (1980) Turnaround Strategies, *Journal of Business Strategy,* 1(1), 19-31.

King, D. R., Dalton, D. R., Daily, C. M., and J. G. Covin (2004) Meta-analyses of post-acquisition performance: indications of unidentified moderators, *Strategic Management Journal*, 25(2), 187-200.

Knechel, W.R. (2001) *Auditing, Assurance and Risk, 2nd edition*, South-Western College Publishing.

Levitan, A.S., J.A. Knoblett (1985) Indicators of Exceptions to the Going Concern Assumption, *Auditing*, 5(1), 26-39.

Maddala, G.S. (1991) A Perspective on the Use of Limited-Dependent and Qualitative Variables Models in Accounting Research, *The Accounting Review*, 66 (4), pp 788-807

McKeown, J.C., J.F. Mutchler and W.S. Hopwood (1991) Towards an Explanation of Auditor Failure to Modify the Audit Opinions of Bankrupt Companies, *Auditing: A Journal of Practice and Theory*, 1-13.

Menon, K., and K.B. Schwartz (1987) An empirical investigation of audit qualification decisions in the presence of going concern uncertainties, *Contemporary Accounting Research*, 3(2), 302-315.

Miller, K.D. (1992) A framework for integrated risk management in international business, *Journal of International Business Studies*, 23(2), 311-331.

Mishina, Y., Pollock, T. G. , and J. Porac (2004) Are more resources always better for growth? Resource stickiness in market and product expansion, *Strategic Management Journal*, 25(12), 1179-1197.

Mitchell, W. and K. Singh, (1996) Survival of businesses using collaborative relationships to commercialize complex goods, *Strategic Management Journal*, 17(3), 169-195.

Mutchler, J.F. (1984) Auditor's Perceptions of the Going-Concern Opinion Decision, *Auditing*, 3(2), p17-30.

Mutchler, J.F. (1985) A Multivariate Analysis of the Auditor's Going-Concern Opinion Decision, *Journal of Accounting Research*, 23(2), 668-682.

Mutchler, J.F., and W. Hopwood (1997) The influence of contrary information and mitigating factors on audit opinion decisions on audit opinion decisions on bankrupt companies, *Journal of Accounting Research*, 35 (2), 295-310.

Powell, W. W., Koput, K. W., and L. Smith-Doerr (1996) Interorganizational Collaboration and the Locus of Innovation: Networks of Learning in Biotechnology, *Administrative Science Quarterly*, 41 (1), 116-145.

Robbins, D.K., and J.A. Pearce II (1992) Turnaround: Retrenchment and Recovery, *Strategic Management Journal*, 13(4), 287-309.

Schendel, D., G.R Patton, and J. Riggs (1976) Corporate Turnaround Strategies: A Study of Profit Decline and Recovery, *Journal of General Management*, 76(3), 3-11.

Stuart, T. (2000) Interorganizational alliances and the performance of firms: a study of growth and innovation rates in a high-technology industry, *Strategic Management Journal*, 21(8), 791-811.

Sudarsanam, S., and J. Lai (2001) Corporate Financial Distress and Turnaround Strategies: An Empirical Analysis, *British Journal of Management*, 12(3), 183-199.

Tennyson, B.M., and R.W. Ingram (1990) Assessing the information content of narrative disclosure in explaining bankruptcy, *Journal of Business Finance & Accounting*, 17(3), 391-410.

TABLE 1: Variable definitions, model specification and expected signs

	Definition	Expected Sign
Dependent variable		
REPORT	1 if going-concern report issued, 0 otherwise	
Independent variables		
Operating approach		
O-COSTRED	1 if the company reports cost reducing activities for the year under audit, 0 otherwise	+
O-DISPOSE	1 if the company reports the sale of assets for the year under audit, 0 otherwise	+
O-COMMERCIAL	1 if the company reports increased marketing efforts for the year under audit, 0 otherwise	+
O-UPGRAD	1 if whether the company reports product and/or process improvements for the year under audit, 0 otherwise	+
OPERATING	Discrete variable representing the sum of all operating initiatives, scaled by its maximum value in the sample	+
Strategic approach		
S-EXPANSION	1 if the company reports acquisitions for the year under audit, 0 otherwise	+
S-COOP	1 if the company entered in cooperative arrangements for the year under audit, 0 otherwise	-
S-PRODUCT	1 if the company reports the introduction of new products for the year under audit, 0 otherwise	+
STRAT_ST	Dummy variable, coded one if the company undertakes strategic initiatives with a short-term impact (S-COOP)	_
STRAT_LT	A score from 0 to 2, scaled by its maximum value in the sample, representing the sum of all strategic initiatives with a long-term impact (S-EXPANSION, S-PRODUCTS)	+
Control variables		
CR	Current ratio	-
LTDTA	Long term debt/ total assets	+
LNTA	Natural log of total assets	-
CFOTL	Cash flow from operations/total liabilities	-
INDCR	1 if company CR exceeds industry median, 0 otherwise	+
CHANGECR	One year change in current ratio	+
DEFAULT	1 if in payment default or technical default of loan covenants, 0 otherwise	+
STOCK	1 if the company plans to sell a significant amount of equity, 0 otherwise	-
BORROW	1 if the company plans to rely on existing loans and credit agreements, 0 otherwise	-

TABLE 2: Sample companies per two digit industry grouping

Two-digit SIC Code	Industry name	Number of Companies
20	Food and Kindred Products	6
27	Printing and Publishing	2
28	Chemicals and Allied Products	32
30	Rubber and Miscellaneous Plastic Products	2
33	Primary Metal Industries	2
34	Fabricated Metal Products	2
35	Industrial Machinery and Equipment	10
36	Electronic and Other Equipment	26
37	Transportation Equipment	10
38	Instruments and Related Products	20
		112

TABLE 3: Descriptive statistics for entire matched sample of distressed companies

	Mean	Median	Standard Deviation	Minimum	Maximum
Operating approach					
O-COSTRED	0.60	1.00	0.49	0.00	1.00
O-DISPOSE	0.31	0.00	0.47	0.00	1.00
O-COMMERCIAL	0.27	0.00	0.44	0.00	1.00
O-UPGRAD	0.21	0.00	0.41	0.00	1.00
OPERATING	0.35	0.25	0.23	0.00	1.00
Strategic Approach					
S-EXPANSION	0.15	0.00	0.36	0.00	1.00
S-COOP	0.60	1.00	0.49	0.00	1.00
S-PRODUCT	0.33	0.00	0.47	0.00	1.00
STRAT_ST	0.60	1.00	0.49	0.00	1.00
STRAT_LT	0.24	0.00	0.29	0.00	1.00
Control variables					
CR	3.27	1.75	5.46	0.21	45.45
LTDTA	0.13	0.02	0.28	0.00	1.97
LNTA	10.34	9.83	1.55	7.06	14.56
CFOTL	-1.55	-0.32	3.27	-25.82	1.28
INDCR	0.31	0.00	0.47	0.00	1.00
CHANGECR	-0.65	-0.49	4.66	-14.48	31.83
DEFAULT	0.36	0.00	0.48	0.00	1.00
STOCK	0.13	0.00	0.33	0.00	1.00
BORROW	0.28	0.00	0.45	0.00	1.00

TABLE 4: Univariate tests of differences between going-concern firms and non-going concern firms

	Non-Going-Concern sample		Going-concern sample		Test of difference
	Mean	**Std. dev.**	**Mean**	**Std. dev.**	**(t-statisitc)**
Operating approach					
O-COSTRED	0.50	0.50	0.70	0.46	2.14**
O-DISPOSE	0.27	0.45	0.36	0.48	1.01
O-COMMERCIAL	0.25	0.44	0.29	0.46	0.42
O-UPGRAD	0.20	0.40	0.21	0.41	0.23
OPERATING	0.30	0.23	0.39	0.22	1.99**
Strategic Approach					
S-EXPANSION	0.11	0.31	0.20	0.40	1.32
S-COOP	0.66	0.48	0.54	0.50	1.35
S-PRODUCT	0.29	0.46	0.38	0.49	1.00
STRAT_ST	0.66	0.48	0.54	0.50	1.35
STRAT_LT	0.20	0.28	0.29	0.30	1.63
Control variables					
CR	4.72	6.98	1.81	2.67	2.91***
LTDTA	0.10	0.16	0.15	0.36	1.02
LNTA	10.35	1.52	10.33	1.59	0.05
CFOTL	-1.58	3.84	-1.52	2.61	0.10
INDCR	0.52	0.50	0.11	0.31	5.18***
CHANGECR	0.12	5.74	-1.42	3.12	1.76*
DEFAULT	0.20	0.40	0.52	0.50	3.73***
STOCK	0.13	0.33	0.13	0.33	0.00
BORROW	0.48	0.50	0.07	0.26	5.42***

* indicates significance at the .10 level (two-tailed)
** indicates significance at the .05 level (two-tailed)
*** indicates significance at the .01 level (two-tailed)

TABLE 5: Logistic regression estimates for Models 1, 2 and 3

Variables	Predicted sign	Model 1			Model 2			Model 3		
		coeff	χ^2	p-value	coeff	χ^2	p-value	coeff	χ^2	p-value
C		-3.78	2.13	0.1441	-7.57	2.75	0.0975	-4.66	1.69	0.193
CR	-	**-0.88**	**7.67**	**0.0056**	**-1.82**	**12.65**	**0.0004**	**-1.29**	**11.50**	**0.0007**
LTDTA	+	0.95	0.51	0.4747	-0.93	0.14	0.7067	0.56	0.09	0.7661
LNTA	-	**0.42**	**2.87**	**0.0905**	0.63	2.37	0.1238	0.38	1.34	0.2464
CFOTL	-	**-1.42**	**14.58**	**0.0001**	**-2.92**	**14.76**	**0.0001**	**-2.13**	**15.72**	**<.0001**
INDCR	-	**-3.08**	**6.91**	**0.0086**	**-8.06**	**11.33**	**0.0008**	**-5.60**	**11.86**	**0.0006**
CHANGECR	-	-0.01	0.02	0.8933	0.12	0.70	0.4016	0.01	0.01	0.9113
DEFAULT	+	**2.11**	**8.84**	**0.0029**	**3.54**	**8.45**	**0.0036**	**2.31**	**6.53**	**0.0106**
STOCK	-	-0.13	0.02	0.8802	-0.48	0.17	0.6786	-0.67	0.41	0.5204
BORROW	-	**-2.58**	**8.47**	**0.0036**	**-3.96**	**9.89**	**0.0017**	**-3.05**	**7.73**	**0.0054**
O-COSTRED	+				**3.22**	**7.27**	**0.0070**			
O-DISPOSE	+				0.93	0.75	0.3874			
O-UPGRAD	+				1.05	1.29	0.2553			
O-COMMERCIAL	+				**4.56**	**7.83**	**0.0051**			
S-COOP	-				**-2.45**	**4.07**	**0.0437**			
S-EXPAND	+				1.88	2.31	0.1287			
S-PRODUCT	+				**1.70**	**2.77**	**0.0962**			
OPERATING								**6.51**	**7.36**	**0.0067**
STRATST								**-1.95**	**4.03**	**0.0448**
STRATLT								**4.09**	**6.68**	**0.0097**
Pseudo R^2			0.61			0.67			0.66	
McFadden R^2			0.51			0.67			0.62	
Model χ^2			79.28			103.84			95.65	

p-values are from two-sided tests.
results that are significant at $p<0.10$ are printed in bold.

APPENDIX B: Correlation matrix

	REPORT	CR	LTDTA	LNTA	CFOTL	INDCR	CHANGECR	DEFAULT	STOCK	BORROW	O-COSTRED	O-DISPOSE
REPORT	1.00											
CR	-0.27	1.00										
LTDTA	0.10	-0.16	1.00									
LNTA	0.00	-0.25	0.17	1.00								
CFOTL	0.01	-0.77	0.19	0.39	1.00							
INDCR	-0.44	0.50	-0.16	-0.04	-0.37	1.00						
CHANGECR	-0.17	0.61	0.00	-0.06	-0.45	0.12	1.00					
DEFAULT	0.34	-0.25	0.15	0.27	0.26	-0.18	-0.01	1.00				
STOCK	0.00	-0.07	-0.06	-0.09	0.05	-0.08	-0.06	-0.06	1.00			
BORROW	-0.46	0.03	-0.02	0.24	0.16	0.31	-0.03	-0.17	-0.05	1.00		
O-COSTRED	0.20	-0.07	0.14	0.25	0.06	-0.04	0.06	0.31	-0.02	-0.10	1.00	
O-DISPOSE	0.10	-0.22	0.08	0.26	0.21	-0.12	0.00	0.34	0.15	-0.03	0.12	1.00
O-UPGRAD	0.02	-0.08	0.14	0.01	0.10	-0.01	0.03	0.08	0.14	-0.02	0.10	-0.01
O-COMMERCIAL	0.04	0.16	0.18	-0.23	-0.21	0.16	0.10	-0.07	0.14	-0.01	-0.04	-0.19
S-COOP	-0.13	0.06	-0.01	-0.23	-0.11	0.04	0.10	-0.07	0.20	-0.06	0.03	-0.19
S-EXPANSION	0.12	-0.08	-0.02	0.00	0.06	-0.02	-0.01	0.20	-0.01	-0.15	-0.01	-0.02
S-PRODUCT	0.09	-0.03	0.06	-0.04	0.01	0.10	-0.01	0.07	-0.04	-0.10	0.03	-0.10
OPERATING	0.19	-0.11	0.27	0.16	0.08	-0.01	0.09	0.34	0.20	-0.09	0.63	0.48
STRAT_ST	-0.13	0.06	-0.01	-0.23	-0.11	0.04	0.10	-0.07	0.20	-0.06	0.03	-0.19
STRAT_LT	0.15	-0.08	0.04	-0.03	0.04	0.07	-0.02	0.18	-0.03	-0.17	0.02	-0.10

	O-UPGRAD	O-COMMERCIAL	S-COOP	S-EXPANSION	S-PRODUCT	OPERATING	STRATST	STRATLT
REPORT								
CR								
LTDTA								
LNTA								
CFOTL								
INDCR								
CHANGECR								
DEFAULT								
STOCK								
BORROW								
O-COSTRED								
O-DISPOSE								
O-UPGRAD	1.00							
O-COMMERCIAL	0.04	1.00						
S-COOP	0.19	0.21	1.00					
S-EXPANSION	0.03	-0.03	0.09	1.00				
S-PRODUCT	0.02	0.22	0.23	-0.03	1.00			
OPERATING	0.51	0.39	0.11	-0.01	0.08	1.00		
STRAT_ST	0.19	0.21	1.00	0.09	0.23	0.11	1.00	
STRAT_LT	0.03	0.16	0.24	0.59	0.79	0.06	0.24	1.00

Appendix A: Strategic Scorecard

Operating Turnaround Initiatives		
	Asset Disposal Strategy	
	Disposal of assets	1 if the company reports the sale of assets during the year to increase cash flow
	Cost Reduction Strategy	
	Reduce or delay expenditures	1 if the company significantly reduced spending or reports significant employee layoffs during the year to increase cash flow
	Commercial Strategy	
	Increase marketing efforts	1 if the company reports increased advertising, increased direct sales efforts, or changes in marketing programs during the year
	Product & Process Improvement Strategy	
	Technological and/or product upgrading	1 if the company reports improvements to existing products and/or production processes during the year

Strategic Turnaround Initiatives	
Cooperation strategy	
Long-term contractual agreements	1 if the company engages into one of the following activities during the year under audit: - closing long-term contracts with buyers or suppliers during the year - entering into new joint ventures and strategic alliances - entering into new licensing contracts - entering into contracts for components, subassemblies and products - entering into new contracts with distributors
Product Innovation Strategy	
Introduction of new products	1 if he company reports the introduction of new products during the year under audit
Expansion Strategy	
Mergers and acquisitions	1 if the company reports horizontal mergers and acquisitions during the year under audit